



Ecotourism and Alternative Livelihood Strategies in Cameroon's Protected Areas

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Abstract: The aim of this study was to investigate the alternative livelihood strategies that local community members utilise to insulate themselves against the fragmented nature of the tourism industry. The study employed a mixed method research approach, based on two case study areas (the Mount Cameroon National Park and the Douala Edéa Wildlife Reserve) in Cameroon. Semi-structured questionnaires were administered to 383 households, collectively, in the two study areas, and in-depth, face-to-face interviews were conducted with key informants. Key findings of the study suggest that many locals engage primarily in various agricultural activities as a livelihood strategy. Although the ecotourism activities present an opportunity in which the locals can engage, it is necessary to secure alternate forms of generating income, due to the seasonality and resultant instability of the industry. The extent to which the communities are impacted upon by ecotourism differs in each case study area. The study advises destination managers to devise plans, policy and strategies that will valorise the sector and facilitate participative management, including the local communities in decision-making processes and in the implementation of ecotourism in their communities.

Keywords: Mount Cameroon National Park; Douala Edéa Wildlife Reserve; sustainable livelihoods framework

JEL Classification: O55; Z32

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1. Introduction

Ecotourism and protected areas, in various forms, are two research concepts that relate to each other. (Lambi et al., 2012) To ensure that ecotourism can occur, the areas concerned must be preserved, and the natural resource base, including its flora and fauna, must be conserved. (Eshun et al., 2016; Kimengsi, 2014) Often, the location of protected areas is also the location of the homes of entire communities, or where communities source various resources to sustain themselves, their families and their livelihood. At this juncture, the possible conflict over access to protected areas, and, consequently, over access to the natural resource base, occurs. (Nkemnyi et al., 2013; Stronza & Gordillo, 2008) As a result of the establishment of protected areas in their various forms, which is meant to enhance and sustain the niche sector of the tourism industry, community livelihoods are often threatened and put at risk. In the available literature, ecotourism is seen as a type of tourism that is often linked to “the improvement of livelihoods and the conservation of nature, including forests”. (Kimengsi, 2014, p. 213) The link is meant to lessen the possible negative impacts that the establishment of protected areas might have on the livelihoods of communities.

However, although the communities concerned might be involved in ecotourism activities, and, in some cases, be their drivers, the lack of involvement and participation in the industry, as well as the

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lack of access to the protected areas (Das & Chatterjee, 2015; Lambi et al., 2012), coupled with the seasonality of the tourism industry, compels the community members to seek out alternative livelihood strategies. By so doing, they are able to insulate themselves against any risk and/or vulnerability. There has been a lack of tourism related research conducted within the Cameroonian context (Kimbu, 2010), with the research that has been conducted mainly focussing on other aspects of tourism, conservation and wildlife. (Kimengsi, 2014; Ngoufo et al., 2014; Tchamba, 1996) Therefore, the current paper seeks to examine the alternate livelihood strategies that local community members utilise to insulate themselves against the fragmented nature of the tourism industry. It does this by examining the alternative strategies employed by the locals from communities living within, or adjacent to, the Mount Cameroon National Park and the Douala Edéa Wildlife Reserve. The paper is grounded within the sustainable livelihoods framework (SLF), which provides the theoretical underpinning for the study.

2. Contextualising Ecotourism and Livelihood

Within the developing country context, Langoya and Long (2016) portray ecotourism as being an income-generating industry with the ability to be the centre of many developing destinations' tourism industries. For example, Venkatesh and Gouda (2016) argue that many developing countries, but especially those that lack the infrastructure and capital to support mainstream tourism industries, are turning to ecotourism, due to their abundance of natural ecological areas. Buckley (1994) provided a framework for eco-tourism which included elements including nature based tourism, conservation supporting tourism, environmentally educated tourism and sustainably managed tourism; indicating the root of eco-tourism in sustainable tourism practices. The establishment of eco-tourism within the Cameroonian context serves to contribute to the growth and development of the country through the utilization of the abundance of natural resources (Lambi et al., 2012); whilst uplifting communities by ensuring that there are opportunities for them to engage in alternate livelihood strategies, as eco-tourism is based on community involvement. (Venkatesh & Gouda, 2016) This is congruent with the SLF, where the vulnerability of communities will be reduced (Allison & Ellis, 2001), as communities will have access to different types of capital, such as financial capital from eco-tourism related activities and natural capital from the protected area, which will insulate them from shocks and allow the sustenance of their livelihood. (Morton & Meadows, 2000)

Ecotourism is defined by the International Ecotourism Society (TIES) as being "responsible travel to natural areas that conserves the environment and improves the welfare of the local people". (Das & Chatterjee, 2015, p. 4) The TIES also affirms the principles of ecotourism that are related to issues of: environmental impact; cultural respect; the positive treatment of both tourists and host communities. Adherence to such principles helps to ensure that the benefits accrued from tourism activity reach local communities, and that the tourism activity involved is able to promote issues regarding the social, political and environmental aspects of the country. (Das & Chatterjee, 2015) The definition and principles of ecotourism imply a form of tourism that is beneficial to the local people and communities, as well as to the physical environment. (Venkatesh & Gouda, 2016) Poverty reduction or alleviation, community development, economic growth, and nature and culture conservation are common themes related to the development of ecotourism industries, especially within the developing country context. (Andereck et al., 2005; Clifton & Benson, 2006; Das & Chatterjee, 2015; Hugo & Nyaupane, 2016; Stronza & Gordillo, 2008; Venkatesh & Gouda, 2016)

Ecotourism industries, as can be seen by the existing plethora of definitions of the concept (Buckley, 2003; Campbell, 1999; Clifton & Benson, 2006; Eshun et al., 2016; Newsome & Hughes, 2016; Njumba, 2012), are primarily based in a natural setting in a protected area, or in a national park. Consequently (and inevitably, when the process is not effectively managed), conflict often arises between the resident communities and the tourism development stakeholders. The communities concerned often lobby for access to natural resources to sustain their livelihoods, and tourism development stakeholders tend to lobby for the preservation of natural resources, so as to increase the number of areas that are potentially available for ecotourism (Nyamweno et al., 2016; Wishitemi et al., 2015), leading to an impasse that has been centred on identifying ways of making eco-tourism better serve the livelihoods of adjacent communities.

Ecotourism, first and foremost, has been associated with positive economic impacts on the destination economies, with the sector being noted as the fastest growing within the tourism industry. (Eshun et al., 2016; Hugo & Nyaupane, 2016; Irizarry, 2017) Positive economic impacts are generally linked to the creation of jobs (Andereck et al., 2005; Tyrrell et al., 2013; Venkatesh & Gouda, 2016), which can have knock-on positive social impacts, in terms of the employment of those from the destination areas, thereby improving the local quality of life. (Wishitemi et al., 2015) However, the possibility that positive impacts are not the only outcome must also be considered. Socially, communities and locals from the destination areas can suffer the negative consequences of ecotourism, through being denied access to the protected areas that are reserved for ecotourism (Das & Chatterjee, 2015); thus, leading to an inability to access their source of livelihoods. In Uganda, in the Budongo Forest Reserve, this was recognised as a serious threat to the community livelihood; with the Eco-tourism Project being borne in an effort to ensure community involvement in eco-tourism activities, as well as communities' access to the protected areas, for the sustenance of their livelihoods. (Langoya & Long, 2016)

From an environmental perspective, drawing on the aforementioned definition of ecotourism, such tourism could positively impact on environmental conservation and preservation efforts, thereby contributing to the sustainable use of natural resources. (Boley & Green, 2016; Irizarry, 2017; Lu et al., 2016) However, the above, too, might be linked to the possible negative social impacts, compromising the livelihoods of the locals and the communities that rely on the natural resource base for sustenance. (Poudel et al., 2016; Stronza & Gordillo, 2008) Furthermore, community participation, or lack thereof, in the conservation efforts stemming from ecotourism can shape the positive or negative attitudes of individuals or groups. Many researchers have realised the importance of the above¹, noting that ecotourism ventures, and the related conservation programmes, usually have a relatively high level of success if the local stakeholders are included in the process.

3. Sustainable Livelihoods Framework

The SLF is an approach that provides an understanding of the livelihoods of the poor. The Department of International Development (DFID) included the sustainable livelihood approach (SLA) as an integral aspect of their pro-poor strategies and policies. (Solesbury, 2003) As Chambers and Conway (1992, p. 5) note “a livelihood in its simplest sense is a means of gaining a living”. The framework does this by means of examining the main factors affecting the lives of those involved, and by providing “an actionable framework for designing and implementing interventions”. (Agarwala et al.,

¹ See, for example (Ebua et al., 2011; Nkemnyi et al., 2013; Vodouhê et al., 2010)

2014) The framework centres on the assets of the poor, and on how they can increase their ability to withstand shocks to their livelihood. (Allison & Ellis, 2001) The SLF includes five assets, namely the natural, physical, human, financial, and social capital assets. The access to, and the interaction with, such assets determines the livelihood of those involved. (Allison & Ellis, 2001)

As the SLF is a people-centred framework, people, as an entity, are at the centre of the web of livelihood assets. The human capital (H) denotes the characteristics of those involved, such as their level of knowledge and skills (like, for example, indigenous knowledge) (Agarwala et al., 2014); their ability to work, learn and acclimatise to new situations; their educational level; and their health and nutrition level. The concept of natural capital (N) is based on the natural resources, such as air, land, water, plant and animal reserves, and forests and other environmental resources, like wetlands, that are used by those involved. (Agarwala et al., 2014) Social capital (S) includes the networks and connections that are formed between those concerned, based on their familial ties or patronage networks. (Agarwala et al., 2014) Physical capital (P) refers to the infrastructure, tools and technology required by people for them to perform their day-to-day activities, including the agricultural tools that are required for the growth of crops. (Agarwala et al., 2014) Such infrastructure as roads, buildings, water and sanitation, energy, and communication facilities are all vital aspects of people's livelihoods, which also influences their participation in eco-tourism activities. Furthermore, the development of these types of infrastructures could also be influenced by eco-tourism demand. Without physical capital, those involved would not be in a position to access the other types of capital available.

The concept of financial capital (F) is based on the monetary resources that are available to people, including any savings that a person might have, as well as any subsidies, like pensions, earned income and services that offer credit facilities, as, for instance, loans. (Agarwala et al., 2014) Financial capital is often thought of being as the most important type of capital, as other types of capital might be purchased with such capital. (Morton & Meadows, 2000) Access to these capital assets directly affects peoples' livelihoods.

As mentioned above, the framework is centred on the assets of the poor. More specifically, the focus is on how the management of their assets can influence the nature of their response to shocks. (Allison & Ellis, 2001) The vulnerability context of the SLF gives rise to policies, institutions and processes that are introduced to aid people with regard to accessing assets, with them being influenced and modelled by those involved, and by the availability of the assets concerned. (Speranza et al., 2014) Livelihood strategies take account of the assets to which people have access, in view of their context of vulnerability. The strategies also take into consideration the policies, the institutions and the processes that either sustain the livelihoods of those involved, or impede them. The result of various livelihood strategies that might be instituted is known as "the livelihood outcome", which is directly related to those concerned, and their various assets. (Morton & Meadows, 2000)

Some of the factors that the framework considers are adverse trends or shocks, the basic lack of assets, and poorly functioning policies and institutions. (Majale, 2002) Therefore, the evolving social environments of people, as well as their ability to adjust to them, as they change, must be taken into consideration, if the framework is to be successful. The SLF is of importance to the current study, as it has been recognised as being a valuable tool for assessing the impacts of protected areas on the livelihoods of the local residents living within, or in proximity to, them. (Bennett & Dearden, 2014) The analysis and discussion in this paper revolves around a number of elements of the SLF, including the various assets (financial, natural, human) that communities have access to sustain their livelihoods, within their unique contexts of living either within or adjacent to a protected area.

4. Tourism and the Protected Areas in Cameroon

Tourism, specifically ecotourism, is an area of potential development in Cameroon that has not yet been fully acknowledged, due to a multitude of factors. (Kimbu, 2010; 2011) The country, which is often referred to as an “Africa in miniature” (Lambi et al., 2012; Tichaawa, 2017), possesses a diverse array of flora, fauna, unique ecological areas, and varied geographical landscapes (Kimbu, 2011), with it being ranked as the second-most biodiverse country on the African continent. (Lambi et al., 2012) Cameroon is also home to numerous classified protected areas, including national parks and wildlife reserves (Tchindjang et al., 2005), but, due to the absence of, or, in some cases, the ineffectiveness of, a policy and regulatory framework, the full tourism potential, and the related benefits from the protected area spaces, have not yet been fully realised. (Kimbu, 2010; Mayaka, 2002) Such realisation requires fulfilment in relation to their potential tourism benefits for all stakeholders, including the communities living within, or adjacent to, the areas concerned. Table 1, which details the different types of protected areas in Cameroon, illustrates that the national parks and the synergetic (wildlife or forest reserves) zones cover the greatest area in the country, with the following map detailing Cameroon’s various protected areas. The protected areas in the two case study covered areas from either a national park, or a wildlife reserve, as discussed below, and as indicated in Map 1.

Table 1. Cameroon’s protected areas

Type of protected area	Number	Area (ha)	%
National parks	17	3 148 937	6.62
Reserves	6	702 995	1.47
Synergetic zones	56	4 735 250	9.96
Zoological gardens	3	4.07	0.0008
Sanctuaries	3	246 368	0.52
Total	85	8 833 554.07	18.58

Source: Table adapted from Tchindjang et al., 2005

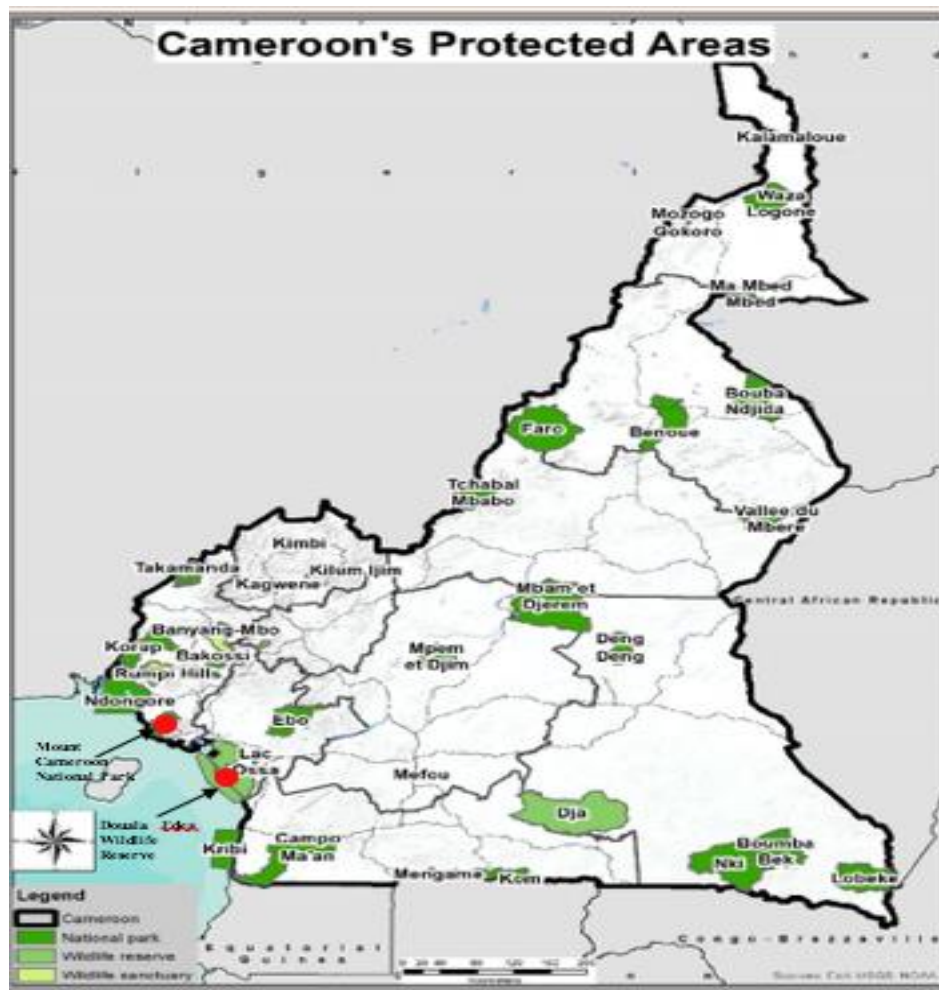


Figure 1. Cameroon's protected areas

Source: Authors, based on fieldwork

The current study was undertaken in two of Cameroon's protected areas, namely the Mount Cameroon National Park and the Douala Edéa Wildlife Reserve. The Mount Cameroon National Park, which is located in the South-West Region of Cameroon (Tegha & Sendze, 2016), is a major drawcard for ecotourism in the region, being home to an impressive array of biomes, ranging from evergreen forests, through sub-mountainous forests, to grassland savannah, in addition to containing rare species of primate, bird and elephant, among others. (Tata & Lambi, 2014; Tegha & Sendze, 2016)

Furthermore, one of the largest active volcanoes on the African continent is located within the park, which was established in response to growing concerns of environmental degradation within the region. (Tata & Lambi, 2014)

The Douala Edéa Wildlife Reserve is located in the Littoral Region of the country (Angoni, 2015), along the coast, consisting of two major biomes; a marine biome and a forest biome. (Ajonina et al., 2005) Similar to the Mount Cameroon National Park, the Douala Edéa Wildlife Reserve hosts a range of flora and fauna, with many of the species of fauna being endangered, and, consequently, of great importance to conservation in the region. (Ajonina et al., 2005) The Douala Edéa Wildlife Reserve supports communities and their livelihoods within the immediate borders of the park, as opposed to the Mount Cameroon National Park, where the local communities are situated outside of the park's

borders, but within close proximity to the National Park.

What the two protected areas have in common is that the primary livelihood strategy of the communities living either within, or adjacent to, the protected area is agriculture, which can place the natural resources of the area under stress, if it is not managed appropriately (Nkemnyi et al., 2013). However, as Tata & Lambi (2014, p. 203) note, “the pressure on natural resources can be reduced by introducing and promoting alternative sources of income for the local population”, which could be related to their involvement, and participation, in ecotourism-related activities. The above is a commonality among most rural communities, with agriculture forming the basis of their primary livelihood strategy. (Hugo & Nyaupane, 2016) The strategy can often clash with the existence and purpose of the protected areas concerned, due to conflict over resources and access to space (Wishitemi et al., 2015), consequently impacting upon the successful delivery of the ecotourism products involved.

5. Methodology

The current study employed the use of a mixed method approach, utilising both qualitative and quantitative research methods; enabling this study to gain holistic viewpoints of the key informants, as well as gauge the perception of communities through the use of a household survey. (Choy, 2014) Two case studies were considered in Cameroon; the Mount Cameroon National Park and the Douala Edéa Wildlife Reserve. The two areas were specifically chosen owing to their historical perspective, geographic location and ecotourism potential, as discussed above. Two population groups were involved in the study. The first group consisted of the head of household, or of an adult representative of the household, who were selected using a systematic, random sampling method. The use of this sampling technique enabled an element of randomness to be present in the selection of respondents. (Cohen et al., 2002) Additionally, the use of this technique allowed the sample to be spread more evenly over the entire community (Kothari, 2004), given that reliable data on the number of households that would have allowed for the determination of an appropriate sample size for both study areas were deemed unreliable. A semi-structured questionnaire was administered to the households from both study sites, with the assistance of fieldworkers. The questionnaire measured key demographic variables (such as position in the household, gender, age, and employment status, among others), and posed statements related to the socio-economic situation, and to the livelihood, of the respondents, using a five-point Likert scale, which is a frequently used tool to gauge the attitudes of people (Cohen et al., 2002), ranging from 1=strongly disagree to 5=strongly agree.

The data collection took place from June to September 2017. A total of 215 household representatives were sampled in the Mount Cameroon National Park region, whereas a total of 168 questionnaires were collected in the Douala Edéa Wildlife Reserve region, making a total sample size of 383 households. In addition to the household surveys, in-depth, face-to-face interviews were conducted with the relevant key informants, who were carefully selected based on their background knowledge, and on the historical context of ecotourism, as well as on their experience of ecotourism. A non-probability, purposive sampling technique was employed.

The key informants formed the second population group in the study. The specific key informants targeted included: a local chief, who was crucial in providing information with regard to the historical context of ecotourism in the Mount Cameroon region; a park authority; a Mount Cameroon National Park community representative; a tour guide; and a Douala Edéa Wildlife Reserve community

representative, all of whom were able to provide valuable information relating to ecotourism practices in each of the case study areas concerned. The community representatives and the tour guide interviewed were able to provide details of the specific livelihood strategies employed by the local residents, as well as details of the impact of ecotourism on their livelihoods. The interview schedules employed comprised a series of open-ended questions posed to each respondent. The questions asked related to, among other factors, the ecotourism growth and development, the community involvement and livelihood, and the historical context of ecotourism development in the area. At the end of the data collection process, a total of five in-depth interviews were conducted.

All the data collected from the questionnaires were input into the Statistical Package for Social Sciences (SPSS) version 25, for the purpose of analysing the results, which are thematically presented below. Descriptive analysis was performed on the data to generate information on the demographic profile of the respondents. In keeping with the SLF, and the various assets linked to the framework, a series of statements were analysed using a five-point Likert scale, as previously mentioned, with the mean and standard deviation for each statement is presented in Table 2 below. The mean, which is a measure of central tendency, and the standard deviation, which is an indicator of dispersion, indicates the average or typical perception in the community, with regard to specific variables (Kothari, 2004). The interviews conducted for this study were recorded, transcribed and categorised into emerging themes, with the data then being analysed according to the content concerned. Key findings from the interviews were included in the results and discussion.

6. Results and Discussion

Overview of the Demographic Profile of the Communities Surveyed

In the Mount Cameroon region, there was an almost even split between the adult representative of the household (48.2%) and the actual head of the household (51.8%) being surveyed. The result differed from that which was discovered in the Douala Edéa region, where the majority of the respondents surveyed were the head of household (63.7%), with the remainder of the respondents (36.3%) being the adult representative of the household. Furthermore, in both the regions surveyed, most of the respondents were male (71.3% in the Mount Cameroon region, and 82.3% in the Douala Edéa region), with their age group varying up to 65 years of age in the Mount Cameroon region, and to older than 65 years of age in the Douala Edéa region.

The respondents in the Mount Cameroon region were found either to be working full- (24.2%) or part-time (8.1%), self-employed (41.6%), retired (4.3%), home executives (8.7%), or unemployed (13%). The situation regarding the employment status of respondents in the Douala Edéa region was notably different, too, from that in the Mount Cameroon region, with the majority of the respondents being self-employed (47.6%), while the remainder of the respondents were unemployed (18.6%), or worked full- (9.5%) or part-time (10.5%), with the rest being retired (8.1%) or home executives (5.7%). The above is an interesting dynamic to note, given the geographic location of each of the case study areas concerned, and the opportunities to which the residents living within the communities had access.

Community perceptions of the impact of ecotourism on the livelihood of the communities was measured using a five-point Likert scale. Table 2 below presents the means and the standard deviations that were obtained in relation to the key statements that were posed to the respondents concerned.

Table 2. Community perceptions of the impact of ecotourism on livelihood

Livelihood	Area		Area	
	Mount Cameroon National Park (n=168)		Douala Edéa Wildlife Reserve (n=215)	
	Mean	Std deviation	Mean	Std deviation
The local residents have suffered from living in an ecotourism destination area.	2,61	1,540	2,27	1,417
The benefits of ecotourism for the community outweigh its costs.	2,99	1,124	2,61	1,194
Ecotourism brings about important economic benefits for the residents of the community.	3,89	1,108	2,60	1,423
Ecotourism benefits only the business owners.	2,18	1,449	2,49	1,666
Ecotourism has increased the employment opportunities for the local residents.	4,05	1,074	2,42	1,541
Ecotourism provides desirable jobs for the community.	2,92	1,429	1,72	1,147
Ecotourism has resulted in conflicts over forest, land and natural resource use.	2,85	1,391	2,70	1,379
Ecotourism activities have resulted in disruption to local people's lifestyle and living culture.	2,54	1,335	2,53	1,394
I hunt in the national protected area to secure a source of food and income.	1,77	1,267	2,27	1,664
I use the national protected area for recreational activities.	2,00	1,336	3,19	1,631
I require access to, and the use of, the national protected area for my cultural and traditional activities.	2,40	1,457	3,14	1,769
I rely on the national protected area for the collection of wood.	1,84	1,292	3,14	1,767
I source food from the national protected area.	2,08	1,384	3,54	1,611
I source natural resources from the national protected area.	2,36	1,453	3,65	1,610
My livelihood strategy depends on my accessing the national protected area.	2,14	1,484	3,70	1,593

Five-point Likert scale, where 1=strongly disagree; 2=disagree; 3=neutral; 4=agree and 5=strongly agree).

At a glance, the results regarding the perception of the impacts of ecotourism on community livelihood in both the study areas, as presented in Table 2, is reflective of a generally underwhelmed, distanced and neutral feeling being prevalent within each of the study sites, in certain instances. Such a phenomenon has also been noted in previous studies. (Andereck et al., 2005) The above is indicative of the lack of the involvement and participation of the communities in ecotourism activities, which is directly related to their livelihood, and, consequently, to any alternative livelihood strategy in which they might engage.

The Douala Edéa Wildlife Reserve (DEWR) community seemed to be fairly unaffected by the presence of ecotourism within their community, as they noted that they did not believe that ecotourism had brought any important economic benefits to the community (mean = 2.60), or that the benefits of ecotourism outweighed its costs (mean = 2.61). This is reflected in the employment characteristics of the DEWR community, as previously discussed, where only 20% of the community are employed (on either a part-time or full-time basis). Das and Chatterjee (2015) state that it is often the case that the benefits of ecotourism are not felt by the communities involved. The above finding was supported by the representative from the DEWR, who mentioned that the community did not benefit from ecotourism in their place of residence. He stated: *Community members do not benefit anything, like the activity is not beneficial to them, the community, at all.*

The results obtained reflected a different perspective on the part of the Mount Cameroon Nation Park (MCNP) community, who seemed to lean towards the opinion that the benefits of ecotourism in their

area of residence had outweighed the associated costs (mean = 2.99). The above finding corresponded to the opinion of the community, who expressed feeling that ecotourism brought about important economic benefits for the community (mean = 3.89), and that the benefits did not necessarily only relate to the business owners involved. The above is evidenced by the tour guide who was interviewed in the MCNP region, who indicated that, although the majority of the tour guides and others involved in the tourism industry engaged in alternative livelihood strategies, engaging in ecotourism activities as a livelihood strategy was preferred, due to the favourable attendant economic return. However, the sustainability of these eco-tourism related jobs must be examined, within the context of the SLF. The seasonality of these jobs does not provide job security or consequent financial security for people who engage in these alternative livelihood strategies, placing them in a vulnerable situation, and exposing them to potential shocks. (Allison & Ellis, 2001) The above is indicated by the following statement made:

For me, it is fast, because, if I construct a door or a window for four or five days, my benefit there is just about CFA20 000, working for five days. But if I go with a tourist on Mount Cameroon, it might be three days, I have a sum of CFA30 000. (Tour Guide – MCNP region)

Most of the MCNP community opined that ecotourism had increased the employment opportunities for the locals in the communities concerned (mean = 4.05), as is evidenced by the employment of local community members as porters and tour guides, according to the Tour Guide interviewed from the MCNP area. However, interestingly, the opinion was also expressed that the employment opportunities involved were not necessarily desirable (mean = 2.92), which could be attributed to the seasonality of jobs emanating from the tourism industry. The above is supported by Eshun (2014), who acknowledges that the nature of jobs in the tourism sector is seasonal, and, therefore, does not serve as a reliable primary livelihood strategy. The above may serve as a motivation for the locals to engage in alternative livelihood strategies. In contrast, the DEWR community indicated that ecotourism had not substantially increased the employment activities of the local residents (mean = 2.42). Moreover, the DEWR community felt strongly that ecotourism had not provided desirable jobs for the community (mean = 1.72). The above finding indicates the lack of community involvement and participation in ecotourism activities, as well as of ecotourism as a livelihood strategy among the local residents in the community. Such views were supported by the views expressed during the holding of discussions with the DEWR community representative, who indicated that the communities lacked involvement and participation in ecotourism, which also seemed to be a problem facing the other communities where ecotourism activities occurred. (Eshun, 2014) The need for community involvement and participation in ecotourism activities has been noted by others (Poudel et al., 2016; Wishitemi et al., 2015), for the purpose of leveraging the benefits provided to the communities, and for enabling primary livelihood strategies to emanate from the ecotourism activities concerned.

Interestingly, little conflict seems, so far, to have arisen over access to, and the use of, the natural resource base (mean = 2.70) in the DEWR community as a result of ecotourism and the establishment of the protected area. The above finding contradicts the findings revealed in the relevant literature, in terms of which an increasing amount of pressure and conflict over resources is expressed as being the norm. (Wishitemi et al., 2015) However, the result is reflective of the unique situation of the DEWR community that is located within the borders of the protected area, and that has access to the resources that they require to sustain their primary livelihood. Accordingly, the local residents' lifestyle and living culture can be seen as not having been severely impacted upon by either (mean = 2.53), which seems to be the case in other ecotourism hot spots in East Africa. (Wishitemi et al., 2015)

With regard to the impact of ecotourism on the livelihood of the local residents, many in the MCNP community indicated that they did not rely on the protected area of the park for various resources, including food. Various results regarding livelihood and the MCNP, as shown in Table 2, indicate means ranging from 1.77 to 2.40, with regard to: sourcing food and natural resources, and collecting wood, from the park; hunting in the park; requiring access to the park for cultural, traditional or recreational activities; and their overall livelihood strategy being dependent on them having access to the protected area of the park. Of significance is the lowest mean obtained, of 1.77, reflecting that the local residents did not hunt in the protected area to secure food and income. The above is supported by the discussion that was held with a local community authority from the MCNP region, who stated: *Even those who were hunters, they do not go. Even if you go now, it's stealing. If you get caught, it is a problem.* (Local Community Authority – MCNP region)

Furthermore, the mean of 2.40 corresponding to the statement that the communities required access to, and the use of, the protected area for their cultural and traditional activities corresponds to the mean obtained in the other results presented in Table 2, in terms of which the community indicated (mean = 2.54) that ecotourism activities had resulted in causing disruption to the local people's lifestyle and living culture. The above-mentioned results indicate an element of independence and non-reliance, as the MCNP community did not (in most cases) require access to the protected area for either cultural or traditional activities, nor had their lifestyle and living culture been greatly disrupted.

Contrary to the situation with the MCNP communities, the livelihood of the DEWR communities seemed to depend on the presence of the protected area, as the sustainability of their livelihood depended on their access to the assets that were available in the protected area (Morton & Meadows, 2000), as has been discussed in terms of the SLF. The mean results found range from 3.14 to 3.70, with the exception of a mean of 2.27, relating to community hunting in the protected area. The DEWR community representative noted that, although the communities were allowed to fish and farm within the protected area, there were still rules and regulations that had to be followed. For example, the intentional fishing of endangered species or immature fish was prohibited. The mean result of 3.70 indicates that many of the local residents were dependent on accessing the protected area to sustain their livelihood strategy, as many of the locals (mean = 3.65) sourced their natural resources, food (mean = 3.54) and wood (mean = 3.14) from the protected area. The results obtained are supported by the discussion that was held with the DEWR community representative, who indicated: *Basically, they do: fishing, agriculture and farming; buying and selling; piggery ... animal rearing ...* (Douala Edéa Wildlife Reserve Community Representative)

Overall, although there are many similarities between the two protected area case studies, regarding the socio-economic impact of ecotourism on the livelihood of the communities living within, or adjacent to, an ecotourism protected area; there are also differences with regard to the alternate livelihood strategies employed by the residents in each study area. Noteworthy, there were slight differences and nuances in the results within the geographic location of the communities concerned. The MCNP communities did not live within the borders of the protected area, but rather adjacent to it, whereas the DEWR communities lived within the borders of the protected area. Therefore, it was inevitable that the latter's livelihoods were more intertwined with the activities taking place in the protected area of the park, with the local residents having found ways and means of supporting themselves with what was available to them from the natural environment and capital that was available to them. (Agarwala et al., 2014) Clearly, the living conditions, to an extent, influenced the local residents' perceptions of the impacts of ecotourism on their livelihood.

As the DEWR community representative stated, most of the locals engaged in farming and fishing, in which they were still permitted to engage, within a predefined framework. For example, with reference to the community members, he noted: *It does not negatively affect their source of income, because they are still allowed to fish and farm. (Douala Edéa Wildlife Reserve Community Representative)*

Therefore, the livelihood strategy of undertaking agriculture was the primary means of survival for the local residents of the DEWR communities, in common with other communities within a rural, developing world context, as noted by the relevant researchers. (Hugo & Nyaupane, 2016; Wishitemi et al., 2015) Additionally, the residents in the MCNP community seemed to engage in alternative livelihood strategies, other than agriculture, enabling them to access financial capital, which empowered them to purchase other types of capital and assets, as was previously discussed in terms of the SLF. (Agarwala et al., 2014) Doing so helped to insulate the community from any possible vulnerability caused by ecotourism in the area.

Furthermore, the location of the MCNP in Buea is another factor to consider in determining the livelihood of the local residents, with many residents engaging in other economic activities in and around the region, which is a similar case to that of the ecotourism-based communities in Ghana. (Eshun, 2014) Alternative economic activities of artisanal work and transportation are what residents in the MCNP region engage in as alternative livelihood strategies, as evidenced by the following quotes, while also engaging in agricultural activities.

They are doing transport in Limbe, the motorbikes. They are working down there in Limbe. (Mount Cameroon National Park Community Representative)

During the off-season, I am a welder by profession. (Tour Guide – MCNP region)

Before the creation of the park, everybody was a farmer that was part of the community livelihoods. So, they go back to farming activity. (Conservator with Local Community Authority – MCNP region)

The MCNP results seem to paint the picture of a community that is quite far removed from the protected area of the park, although living in such close proximity to it. The above indicates the need for a greater level of community participation and involvement in ecotourism activities than was encountered at the time of the study. Ultimately, the greater involvement of the communities than at present should lead to ecotourism benefitting them in a meaningful way.

7. Conclusion and Recommendations

The presence of ecotourism activities in both of the case study areas can be seen to have impacted upon the community livelihood, and on their strategies, albeit to differing degrees. The above is due to varying reasons, including (but not limited to) the geographic location of the communities, and the extent to which the communities have been involved in ecotourism activities. The communities within the DEWR region were found to engage in agricultural activities, as they resided within the borders of the park, where they were allowed by the park authorities to farm and fish (within a framework of regulations), ensuring continued access to the natural capital of the protected area. They were not directly involved in the ecotourism activities that occurred in the DEWR, leading to there being no alternative livelihood strategies of which to speak, or no significant increase in financial capital. Rather, the community members adopted primary livelihood strategies, similar to those of other communities within the rural, developing world context. (Hugo & Nyaupane, 2016)

The situation in MCNP differed slightly to that in the DEWR. The community members employed alternative livelihood strategies, as many residents from the communities living adjacent to the park were involved in ecotourism-related activities (working as porters/tour guides/guards), although such work was seasonal in nature, and not permanent. This involvement in eco-tourism related activities served to increase the MCNP community's access to financial capital. Furthermore, as the communities concerned lived outside the park, they had opportunities for interaction with the tourists, and, therefore, entrepreneurial opportunities existed for the residents, as the tourists involved had to pass through the area to reach the park. To ensure that they could support themselves financially throughout the year, many of the residents who were involved in ecotourism-related activities also engaged in other activities. By doing so, they insulated themselves from the seasonality, and the resulting instability, of the industry, working as artisans (e.g. as welders), or engaging in agricultural activities, off-season.

The need for a more inclusive and participatory approach toward ecotourism was clearly present in the case study areas, in terms of which community involvement and participation should be prioritised and incorporated into the management strategy. This would also serve to increase the social capital within the communities, leading to a more positive and accepting attitude towards eco-tourism activities. (Manwa et al., 2017) The above has been noted by many different researchers.¹ Through adopting a participative management approach, the communities should gain the ability to diversify, as well as to strengthen and to sustain, their livelihoods, while working to ensure that ecotourism in the protected areas is successful, as opposed to the different role-players working at cross-purposes to one another.

The recommendations for further research include reviewing the existing policy framework which has been a hindrance to the successful promotion and implementation of eco-tourism in Cameroon. These policies would create viable environments and mechanisms for eco-tourism operation to become significant as an alternative livelihood strategy, that people are able to depend on. This is imperative if future dependence on the tourism, and eco-tourism sector in particular, is earmarked in the Cameroonian context. Further recommendations include investigating: how to achieve effective community participation and involvement in ecotourism activities; how existing policy could facilitate the above; and what additional measures should be instituted to ensure a successful outcome on the part of both the communities and the government, alike.

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¹ See (Eshun, 2014; Ngoran et al., 2016; Poudel et al., 2016; Wishitemi et al., 2015).

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